How Are Patients' Specific Ambulatory Care Experiences Related to Trust, Satisfaction, and Considering Changing Physicians?

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CONTEXT: **Few data are available regarding the consequences of patients' problems with interpersonal aspects of medical care.**

OBJECTIVE: **To assess the relationships between outpatient problem experiences and patients' trust in their physicians, ratings of their physicians, and consideration of changing physicians. We classified as problem experiences patients' reports that their physician does not always 1) give them enough time to explain the reason for the visit, 2) give answers to questions that are understandable, 3) take enough time to answer questions, 4) ask about how their family or living situation affects their health, 5) give as much medical information as they want, or 6) involve them in decisions as much as they want.**

DESIGN: **Telephone survey during 1997.**

PARTICIPANTS: **Patients (N = 2,052; 58% response) insured by a large national health insurer.**

MEASUREMENTS: **Patient trust, overall ratings of physicians, and having considered changing physicians.**

RESULTS: **Most patients (78%) reported at least 1 problem experience. In multivariable analyses, each problem experience was independently associated with lower trust (all $P < .001$) and 5 of 6 with lower overall ratings ($P < .001$). Three problem experiences were independently related to considering changing physicians: physicians not always giving answers to questions that are understandable (odds ratio [OR], 2.0; 95% confidence interval [CI], 1.3 to 3.0), not always taking enough time to answer questions (OR, 3.3; 95% CI, 2.2 to 5.2), and not always giving enough medical information (OR, 4.0; 95% CI, 2.4 to 6.6).**

CONCLUSIONS: **Problem experiences in the ambulatory setting are strongly related to lower trust. Several are also associated with lower overall ratings and with considering changing physicians, particularly problems related to communication of health information. Efforts to improve patients' experiences may promote more trusting relationships and greater continuity and therefore should be a priority for physicians, educators, and health care organizations.**

KEY WORDS: **ambulatory care; trust; patient satisfaction; communication; patient-physician relationship.**
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Strong patient-physician relationships form the foundation of good medical care. These relationships are shaped over time by patients' experiences with their physicians during clinical encounters. Physicians' abilities to communicate health information effectively, emphasize patient-centered care, use a participatory decision-making style, elicit patients' reasons for visits, and provide emotional support have an important role in clinical encounters. Previous studies have demonstrated that these behaviors can strengthen the patient-physician relationship, improve patients' satisfaction with their care, decrease emotional distress, and improve health outcomes.[1–11]

Each patient-physician interaction comprises experiences that shape patients' opinions about their physicians. These experiences may be directly related to physicians' behaviors or related to disagreements[12] between patients and providers about care, and they likely influence patients' trust in their physicians and satisfaction with their physicians (Fig. 1). They may also influence whether patients consider changing their physicians, either directly (Fig. 1, pathway A) or via their effects on trust and satisfaction (Fig. 1, pathways B and C), both of which are related to continuity with providers.[13,14] Little is known about the relative importance of specific ambulatory care experiences or their relationships with these outcomes. In recent years, investigators have made considerable advances in methods of asking patients about their health care experiences.[15] Reports of patients' experiences can identify problems related to quality of care and opportunities for improvements.[16,17] Learning how specific experiences are related to trust, satisfaction, and considerations of changing physicians may help physicians and health care organizations strengthen patient-physician relationships.

In this study, we asked patients about specific ambulatory care experiences and assessed the relationships between problem experiences and 3 outcomes: 1) patients' trust in their physicians, 2) overall ratings of their physicians (as a measure of satisfaction), and 3) consideration

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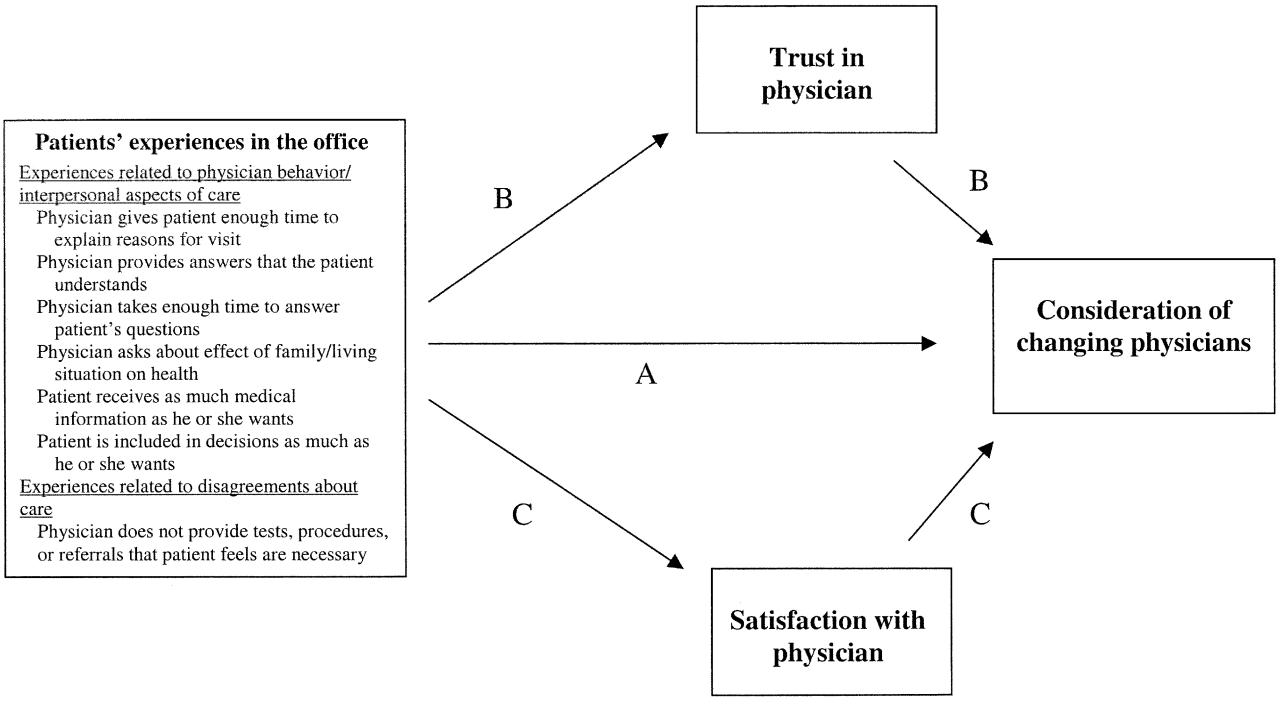

FIGURE 1. Proposed framework for examining the relationship between patients' experiences in the office and trust, ratings of physicians, and considerations of changing physicians. This model depicts plausible pathways for these relationships, recognizing that other factors such as patient and physician characteristics and beliefs may influence each step of the pathway and that some of the pathways may have reciprocal effects.

of changing physicians. We also evaluated the extent to which the relationships between problem experiences and considering changing physicians were mediated by the effect of experiences on patients' trust in their physicians and overall ratings of their physicians.

METHODS

Study Population

We identified all adult patients enrolled in managed care or indemnity products of a large, national health insurer in 3 metropolitan areas (Atlanta, Orlando, and Washington, DC/Baltimore) who had 1 or more visits with a primary care provider (family practitioner, general internist, or obstetrician/gynecologist) in 1995.[18] We stratified patients according to how their physician was paid for their care (salary, capitation, fee-for-service managed care, and fee-for-service indemnity), and we drew a disproportionate probability sample of patients from the practice of each physician with at least 8 eligible patients.[18]

Data Collection

We surveyed patients by telephone from January through June 1997. The 15-minute survey included questions to assess (in the following order): patients' overall ratings of their physicians (as a measure of satisfaction), experiences with care, trust in their physicians, consideration of changing physicians, and demographic characteristics.

Experiences with Care. We asked patients about experiences during office visits with their primary care physician using questions from the Picker-Commonwealth Survey of Patient-Centered Ambulatory Care, adapted from the Picker-Commonwealth Survey of Hospital Care.[16,19,20] Patients were asked to consider their office visit experiences with their primary care physician and report whether their physician: 1) gives them enough time to explain the reason for the visit, 2) gives them answers to questions that are understandable, 3) takes enough time to answer their questions, 4) asks about how their family or living situation might affect their health, 5) gives as much medical information as they want, and 6) involves them in decisions as much as they want. Response options were always, usually, sometimes, and never. We also asked patients whether there was a time in the past 12 months when they were not able to see a specialist when they thought they needed one or when their primary care physician did not provide or order tests, procedures, or treatments that they thought they needed.

We considered ideal care to be reflected by patients responding "always" to each of the experiences examined, and therefore we categorized each experience as a problem experience if they responded "usually," "sometimes," or "never." We used this categorization for 2 reasons. First, we believed our findings would be relevant to more physicians

if we identified a high standard so that even very good clinicians might find opportunities for improvement. Second, many patients, particularly those in good health, have relatively few opportunities to interact with their physicians, so each opportunity is important. For the items related to provision of tests and procedures or referrals that patients felt were needed, a problem experience was identified if patients responded yes to either or both of these questions.

Trust, Satisfaction, and Consideration of Changing Physicians. To measure patients' trust in their physicians, we adapted the Trust-in-Physician Scale[21] using psychometric analyses of data from approximately 300 patients in a pilot study (coefficient α = 0.94) (ACK, unpublished data). This 10-item scale included topics such as providing information about medical options and making appropriate medical decisions (Appendix A). To measure satisfaction, we asked patients to rate their overall experiences with their physician as excellent, very good, good, fair, or poor. Finally, we asked patients whether they ever considered changing their physician because of concerns about their care.

Control Variables. We asked patients whether they felt they had enough choice when they chose their current physician, how long they had been seeing their physician (categorized as 1 to 3 years, 4 to 9 years, $\geq$10 years), whether they had a choice in selecting their health plan, and about their health status (excellent/very good vs good/fair/poor), educational attainment (non-high school graduate, high school graduate, college graduate, post-graduate schooling), race (white, African American, other), and income (<$25,000, $25,000 to $44,999, $45,000 to $64,999, $\geq$$65,000). We also asked patients how much they trusted their health plan to control costs without adversely affecting patient care, how much they trusted HMOs in general to control costs without adversely affecting patient care, and we assessed patients' general trust in others using the Benevolence-of-People scale.[22]

We obtained information on patients' age (categorized in 10-year categories), gender, number of outpatient primary care visits in the past year (0, 1 to 2, >3), physicians' gender, board certification, foreign medical graduate status, specialty (family practice, internal medicine, obstetrics/gynecology), and practice type (solo, partnership, group practice, other) from the insurer's administrative files and supplemented physician data with the American Medical Association's 1997 Physician Masterfile.

Statistical Analyses

Of 4,448 patients sampled, 2,733 (61%) were screened for eligibility, 710 (16%) refused participation prior to screening, and 1,005 (23%) were not contacted due to incorrect telephone numbers (n = 810) or no answer after 8 attempts (n = 195). Of the screened patients, 511 (19%) were ineligible because they: were no longer health plan enrollees (n = 303), reported not having a "regular doctor" (n = 114), or could not be interviewed due to language or hearing difficulties (n = 94). We obtained completed interviews from 2,086, a 54% response rate among those not known to be ineligible. However, assuming the proportion of ineligible patients in the nonscreened group was comparable to that in the screened group (19%), a more accurate estimate of the response rate is 58%. Respondents were older than nonrespondents (46 vs 43 years; $P < .01$), more likely to be women (69% vs 64%; $P < .01$), and members of the insurance plan for a shorter period (7.0 vs 7.7 years; $P < .05$). We excluded 26 patients who responded to fewer than 7 items on the 10-item trust scale and 8 patients who did not respond to the question about considering changing physicians, leaving a final cohort of 2,052 patients.

We used the χ^2 test to assess bivariate associations between responses to each experience (as 4-category variables) and 1) a score on the trust scale of $\geq$4.4 of 5 (the upper 2 tertiles of this scale), 2) an "excellent" overall rating of experiences with their physician, and 3) having considered changing physicians. We dichotomized trust at the upper 2 tertiles because the variable was highly skewed, with one third of patients having the maximum value of 5 on the trust scale, and we wanted to demonstrate clearly variations in trust by experiences. We assessed correlations among experiences using the Pearson correlation coefficient. We assessed the relationship of increasing numbers of problem experiences and considering changing physicians using the Mantel-Haenszel χ^2 test.

We conducted separate multivariable analyses for each of our 3 dependent variables. First, we used linear regression to assess the relationship between specific problem experiences (including all 6 experiences related to interpersonal care and the experience related to disagreements about care [whether the patient reported not being provided tests or treatments or a referral that they thought they needed] as independent variables in a single model) and trust (dependent variable), controlling for other variables that might be related to trust in one's physician including the patient and physician characteristics described above and geographic plan location. To distinguish trust in one's physician from other types of trust, we also controlled for patients' trust in their health plan, trust in HMOs, and general trust in people.

Second, we assessed the relationship between specific problem experiences (again including all experiences as independent variables in a single model) and the dependent variable, overall ratings of physicians (our measure of satisfaction), also using linear regression. Control variables were as described above; however, we did not include the trust variables.

Third, we used logistic regression to assess the relationship between specific problem experiences with care (again including all problem experiences as independent

variables in a single model) and whether patients had considered changing physicians (dependent variable). Control variables were as described for the second analysis. To evaluate whether trust and ratings of physicians mediated the relationships between problem experiences and whether they had considered changing physicians, we first added trust as a continuous variable to this model and next added patients' overall ratings of their experiences with their physicians (both as independent variables).

A total of 377 patients (18%) were missing between 1 and 3 items of the 10-item trust scale; the trust score for these patients was calculated as the mean of the nonmissing items. For multivariable analyses, indicator variables were created to indicate item nonresponse for: race (missing 2.3%), income (13.4%), years with physician (2.5%), physician specialty (3.0%), enough choice of physician (7.9%), choice of health plan (4.7%), physician certification status (15.0%), trust in one's health plan (3.5%), and trust in HMOs (4.6%). Item nonresponse was infrequent for the questions about experiences with care: data were missing for 3.4% of patients for the item on physicians inquiring about the patients' family and for <1% of patients for each of the other experiences. For these and other variables with <1% missing data, individuals were omitted from analyses, leaving 1,922 of the 2,052 patients in the regression models.

Several of the control variables were highly correlated with each other, but we did not develop a reduced model with fewer covariates because the coefficients of those variables were not of substantive interest. This approach should result in a conservative estimate of the size of the coefficients of interest. To assess the sensitivity of our results to our method of coding problem experiences, we conducted additional analyses in which we defined a problem experience to include the responses "never" or "sometimes" versus "usually" or "always." We also tested for interactions between problem experiences and health status to assess whether problem experiences among the sickest patients, who are likely to have more visits with their physicians and more problem experiences, had different relationships with our dependent variables than those among healthier patients. Because the trust and satisfaction variables were skewed, we repeated multivariable analyses after log transformation when these variables were dependent variables, and using indicator variables to designate quartiles for these variables when used as independent variables. Finally, because patients who did not visit their physicians in the past year would be unlikely to have disagreements about care in the past 12 months, we also examined the relationships between experiences and the outcome variables among patients who had 1 or more visits with their physician in the past year.

All analyses were performed using Stata statistical software (version 5.0, Stata Corp., College Station, Tex). We used the Huber correction to calculate appropriate standard errors for our estimates to account for clustering within physician.[23] We also conducted fixed effect models for the trust and ratings models and conditional logistic regression models predicting whether patients considered changing physicians to assess for confounding of the associations between experiences and the outcomes by physician.[24] The results of these analyses did not differ substantively from our main results. Thus, the associations reported appear to be within-physician effects, and there appears to be little confounding of the relationships between experiences and outcomes by physician effects.

RESULTS

The patients in our sample had a mean age of 46 years, 69% were women, 78% were white, and 43% had completed college. Sample demographics are presented in Table 1.

Table 2 lists the specific experiences that we assessed: 6 questions related to interpersonal care and 2 questions related to disagreements about care. Also displayed are the numbers of patients who reported each response and the proportion of each group of respondents who were most trusting of their physician, rated their physician as excellent, and reported that they had considered changing their physician. For each experience, patients who responded "always" were most trusting of their physician, most likely to rate their overall experiences with their physician highly, and least likely to report that they had considered changing their physician. Patients who responded "never" or "sometimes" were least trusting, least likely to rate their overall experiences highly, and most likely to have considered changing physicians (all $P < .001$). Approximately 13% of patients reported that their physician had not provided or ordered tests or treatments or referred them to a specialist they thought they needed in the past year. These patients were substantially less likely than other patients to be very trusting of their physician or to rate their overall experiences with their physician as excellent and were substantially more likely to report having considered changing physicians (all $P < .001$). The experiences were highly correlated with one another, with coefficients ranging from 0.31 to 0.69 (all $P < .001$).

Most (78%) patients reported at least 1 problem experience. The number of patients who had considered changing physicians increased substantially as the number of problem experiences increased (Fig. 2). Overall, 12% of patients reported having considered changing physicians. Only 1% of patients with no problem experiences had considered changing physicians, while 53% of patients with 6 problem experiences had considered changing physicians ($P < .001$).

In multivariable analyses, each problem experience was independently associated with lower trust after controlling for other variables (Table 3, left column; all $P < .001$). Not always being involved in decisions as much as a patient wanted was not significantly associated with overall ratings of physicians, but each of the other problem

Table 1. Sample Characteristics

Patient Characteristics	Patients (*N* = 2,052)	Characteristics of Patients' Physicians and Plans, %	
Patient age, mean (SD)	46 (12)	Physican gender	
Patient gender, %		Male	79
Male	31	Female	21
Female	69	Physician specialty	
Patient race, %		Family practice	34
White	78	Internal medicine	44
African American	14	Obstetrics/gynecology	18
Other	6	Unknown	3
Unknown	2	Board certification status	
Annual income, %		Certified	76
Less than $25,000	7	Not certified	9
$25,000 to $44,999	22	Unknown	15
$45,000 to $64,999	23	Physician's medical school	
$65,000 or more	36	Foreign medical school graduate	18
Unknown	13	U.S. medical school graduate	78
Education, %		Unknown	4
Non–high school graduate	4	Physician practice type	
High school graduate	54	One-physician practice	27
College graduate	26	Two-physician practice	12
Any post graduate	17	Group practice	38
Self-reported health status, %		Other	19
Excellent/very good	67	Unknown	4
Good/fair/poor	33	Plan location	
Enough choices of physicians, %		Atlanta	12
Yes	72	Orlando	30
No	20	Washington, D.C./Baltimore	59
Unknown	8		
Choice of plan, %			
Yes	59		
No	36		
Unknown	5		
Number of visits with primary care provider in past year, %			
None	41		
1 to 2	33		
3 or more	26		
Length of relationship with MD, %			
1 to 3 years	47		
4 to 9 years	34		
10 or more years	16		
Unknown	3		
Type of health insurance, %			
Unmanaged fee-for-service	18		
Managed care	82		

experiences was independently associated with lower overall ratings (Table 3, right column; all $P < .001$).

Table 4 demonstrates the results of 3 logistic regression models assessing the relationship between problem experiences and patients' reports that they had considered changing physicians. In the first model, patients whose physicians did not always give answers to questions that are understandable (odds ratio [OR], 2.0; 95% confidence interval [CI], 1.3 to 3.0), patients whose physicians did not always take enough time to answer their questions (OR, 3.3; 95% CI, 2.2 to 5.2), and patients whose physicians did not always give as much information as they wanted (OR, 4.0; 95% CI, 2.3 to 6.6) were substantially more likely to report having considered changing physicians than other patients, controlling for all problem experiences and patient, physician, and plan variables. Patients who were not provided tests, procedures, or referrals they thought were needed (OR, 4.4; 95% CI, 2.9 to 6.6) were also more likely to have considered changing physicians.

When we included the trust scale in this model, patients whose physicians did not always give answers to questions that are understandable were no longer significantly more likely to report that they had considered changing physicians, suggesting this relationship may have been mediated by lower trust in their physicians if our causal model is correct. The other experiences remained significantly associated with patients' reports that they had considered changing physicians, although the strength of the associations was reduced. Higher levels

Table 2. Unadjusted Associations between Patients' Experiences with Care and Trust in their Physicians, Ratings of their Physicians, and Considering Changing Physicians

			Mediating Factors		Consequences
Experience	Response	Patients, *n*	In Upper 2 Trust Tertiles*, %	Rate Their Physician as Excellent*, %	Have Considered Changing Their Physician*, %
Patients' experiences related to interpersonal care					
Does your physician give you enough time to explain the reasons for your visit?	Never	22	18	9	82
	Sometimes	94	18	3	55
	Usually	287	34	14	26
	Always	1,637	79	57	6
When you ask questions, do you get answers that are understandable?	Never	13	15	15	69
	Sometimes	96	10	3	73
	Usually	322	38	14	25
	Always	1,613	79	58	5
Does your physician take enough time to answer your questions?	Never	16	0	0	94
	Sometimes	97	11	2	65
	Usually	314	38	15	29
	Always	1,622	80	58	5
Does your physician ask you about how your family or living situation might affect your health?	Never	491	42	23	30
	Sometimes	572	69	44	10
	Usually	410	77	52	4
	Always	509	89	71	4
Do you get as much medical information as you want from your physician?	Never	45	13	2	73
	Sometimes	188	20	10	56
	Usually	562	51	24	14
	Always	1,253	87	66	2
Are you included in decisions about your care as much as you want?	Never	58	26	16	50
	Sometimes	195	30	18	43
	Usually	440	54	31	13
	Always	1,343	82	59	6
Patients' experiences related to disagreements about care (in the last 12 months)					
a. Was there ever a time when your physician did not provide or order tests or treatment you thought you needed?	Yes to question a or b or both	262	30	15	45
b. Was there ever a time when you were not able to see a specialist when you thought you needed one?	No to both questions	1,790	75	53	7

* $P < .001$ *for all comparisons by the* χ^2 *test.*

of trust were strongly and inversely related to considering changing physicians (Table 4).

When patients' overall ratings of their experiences with their physician were added to the model, the effects of 2 of the problem experiences on having considered changing physicians were reduced further. The overall ratings did not appear to mediate the relationship between not being provided tests, procedures, or referrals the patient thought were needed and having considered changing physicians. Both lower trust and lower overall ratings of physicians remained strongly and independently associated with having considered changing physicians (Table 4). The c-statistics for these models are 0.90, 0.93, and 0.95, respectively, compared to a c-statistic of 0.75 for a model including only patient, physician, and plan characteristics.

When we redefined each problem experience to include the responses "never" or "sometimes" versus "usually" or "always," our findings were consistent. All problem experiences remained independently highly related to trust and ratings, and problem experiences related to the provision of health information were most strongly related to having considered changing physicians. In other analyses testing for interactions between problem experiences and health status, none of these interactions were statistically significant. In analyses using log transformation of

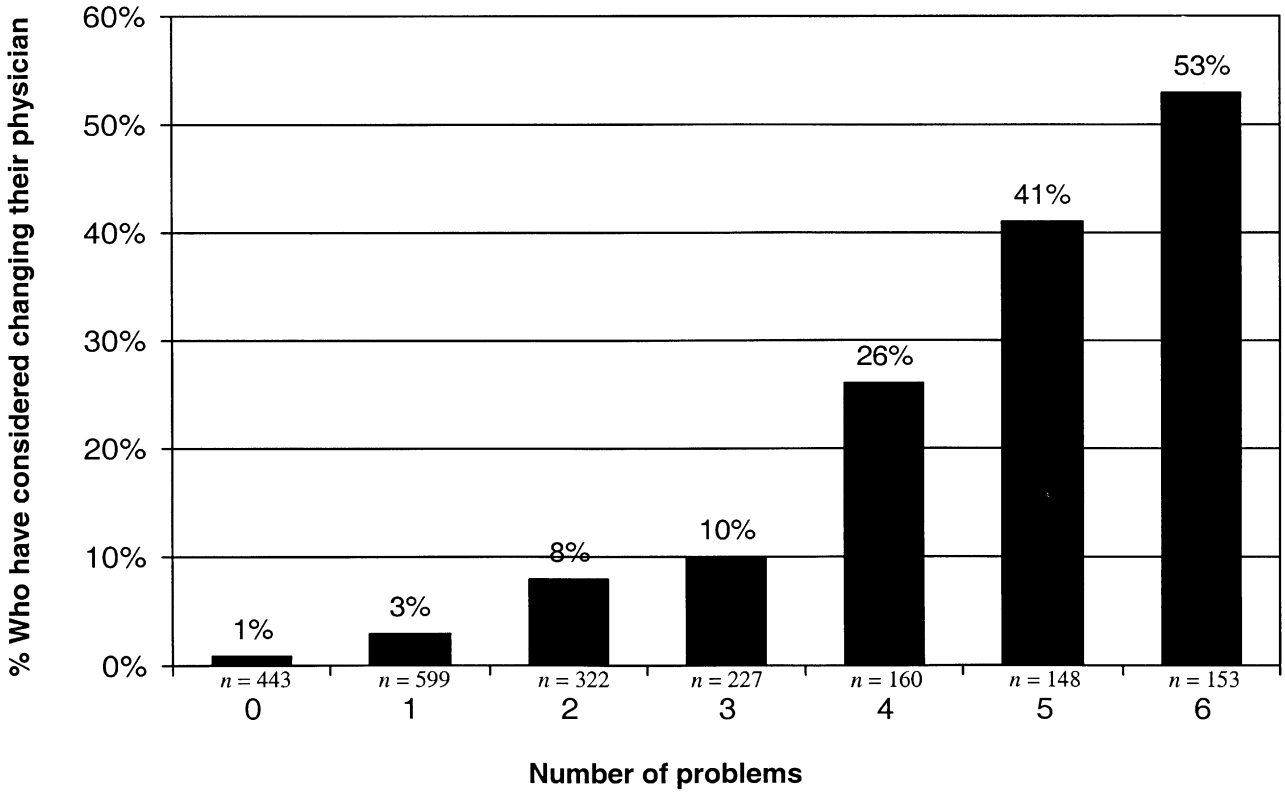

FIGURE 2. Percentage of patients who have considered changing their physician by number of problems. Number of problems ranges from 0 to 6 based on patients' reports that their physician does not always 1) give them enough time to explain the reason for the visit, 2) give answers to questions that are understandable, 3) take enough time to answer questions, 4) ask about how their family or living situation affects their health, 5) give as much medical information as they want, or 6) include them in decisions as much as they want.

the trust and ratings when dependent variables or quartiles when independent variables, results did not change. Finally, in analyses restricting the sample to patients who had a visit with their physician during the prior year, the relationships between problem experiences and trust, satisfaction, and considering changing physicians were similar. A minor difference was the change in the association between not being provided tests, procedures, or referrals that the patient thought were needed and considering changing physicians when also adjusting for trust. In analyses including only experiences and control variables, the association was similar to that presented in Table 4 (OR, 4.4; 95% CI, 2.6 to 7.5). When trust was added to the model, the OR decreased (as it had in the original model) and was no longer statistically significant (OR, 1.6; 95% CI, 0.9 to 2.9), suggesting that this relationship may have been mediated by lower trust in the physician. This OR did not change when overall ratings were also added to the model (OR, 1.6; 95% CI, 0.9 to 3.1).

DISCUSSION

Overall, patients in this study reported good experiences with their care in the ambulatory setting, although most patients had at least 1 problem experience. Despite being highly correlated with one another, each problem experience was independently associated with patients' trust in their physicians and all except 1 were independently associated with lower ratings of physicians. Moreover, several problem experiences, particularly those related to communication of health information, were also independently associated with considering changing physicians. These findings demonstrate the importance of patients' experiences with their physicians and suggest that problem experiences may compromise strong patient-physician relationships and potentially disrupt patient-physician continuity.

Our study has important implications for several audiences. In demonstrating the prevalence and importance of problem experiences, our findings may prompt practicing physicians to focus on improving patient-physician interactions. In addition, educators can use these findings to emphasize communication skills as a priority topic for continuing medical education and medical school curricula. Finally, health care organizations could use the types of questions asked in this study to collect regularly patients' reports of their experiences for internal quality improvement. Asking about specific experiences can more effectively capture patients' perceptions of what actually occurred than asking about satisfaction, which is

Table 3. Relationships between Patients' Experiences and Trust in Physicians and Ratings of Physicians*

Experience	Trust in Physician† β Coefficient (*P* Value)	Overall Ratings of Physician‡ β Coefficient (*P* Value)
Problem experiences related to interpersonal care		
Physician does not always give patient enough time to explain the reason for the visit.	−0.21 (<.001)	−0.29 (<.001)
Physician does not always give answers to questions that are understandable.	−0.21 (<.001)	−0.35 (<.001)
Physician does not always take enough time to answer questions.	−0.14 (<.001)	−0.39 (<.001)
Physician does not always ask about how their family or living situation might affect their health.	−0.07 (<.001)	−0.16 (<.001)
Patient does not always get as much medical information as he/she wants.	−0.18 (<.001)	−0.35 (<.001)
Patient is not always involved in decisions as much as he/she wants.	−0.12 (<.001)	−0.04 (.30)
Problem experiences related to disagreements about care		
Patient was not provided tests, procedures, or referrals that he/she thought were needed.	−0.43 (<.001)	−0.46 (<.001)

** Using linear regression, also controlling for patient characteristics (age, gender, race, education, income, health status, choice of physicians, number of visits in past year, number of years seeing current doctor, choice of health plans and type of insurance), physician characteristics (specialty, type of practice, foreign medical graduate status, board certification status, and gender) and plan site. The trust model also controls for trust in their health plan, trust in HMOs in general, and general trust.* N = *1,922 for all models due to missing data.*

† *Trust scale ranges from 1 (not at all trusting) to 5 (completely trusting).*

‡ *Ratings range from 1 (poor) to 5 (excellent).*

more likely to be influenced by expectations and personal relationships.[17,25] Furthermore, information about specific experiences is more useful for problem solving than general satisfaction information.

In this study, problem experiences related to the communication of health information (physicians not always providing as much medical information as patients wanted, taking enough time to answer questions, or giving answers to questions that were understandable) were strongly related to trust, ratings, and having considered changing physicians. These results are consistent with other studies demonstrating that patients value health information highly,[26,27] particularly health education and discussion of treatments.[28] However, evidence suggests that physicians underestimate patients' desire for health information[29,30] and overestimate the amount of time they spend providing it.[29]

Previous studies have demonstrated that physicians frequently fail to solicit patients' complete agendas.[31,32] In our study, reports that physicians did not always give enough time to explain the reasons for the visits were independently associated with lower trust and lower ratings in multivariate analyses. They were not, however, associated with having considered changing physicians, controlling for the other experiences. Marvel et al.[32] found that only 28% of patients were allowed to complete their statement of concerns when assessed by audiotape. In our sample, 80% of patients (Table 1) reported that their physician always gave them enough time to explain the reasons for their visit. Patients may not recognize subtle interruptions that can be detected by audiotape or may not find them especially problematic. Alternately, our finding may be a result of patients' tendency to rate their physicians highly.[33]

Patients who reported that they were not always involved in decisions as much as they wanted to be were less trusting of their physicians, but controlling for other experiences, they were not more likely to have considered changing physicians. Although another study found patients who rated their physicians as less participatory to be more likely to change their physicians,[8] patients vary in their desire for participation in decisions[34–37]; therefore, this may be less important to some patients than to others. Patients whose physicians do not always ask about how their family or living situation might affect their health were also less trusting and rated their physicians lower, but were not more likely to have considered changing their physicians. Patients may not consider these questions necessary at every visit.

Patients who reported that they were not provided tests, procedures, or referrals they thought were needed were substantially less trusting, rated their physicians lower, and were more likely than other patients to have considered changing physicians. These results are consistent with other data suggesting that dissatisfaction with access to specialty care is associated with lower trust, confidence, and satisfaction with physicians[38] and with intentions to leave managed care plans.[39] Providers' decisions to limit tests, procedures, or referrals are often entirely appropriate. Communication strategies[12] to increase discussion about such decisions may result in fewer patients leaving the office feeling that they were not provided a needed service.

Our findings must be interpreted in light of several limitations. First, we surveyed enrollees of a single large

Table 4. Patients' Experiences and Adjusted Odds of Having Considered Changing Physicians*

Experience	OR (95% CI) Base Model†	OR (95% CI) Base Model and Trust‡	OR (95% CI) Base Model and Trust and Overall Ratings§
Problem experiences related to interpersonal care			
Physician does not always give patient enough time to explain the reason for the visit.	1.1 (0.7 to 1.7)	0.7 (0.4 to 1.2)	0.6 (0.4 to 1.01)
Physician does not always give answers to questions that are understandable.	2.0 (1.3 to 3.0)‖	1.3 (0.8 to 2.1)	1.1 (0.7 to 1.8)
Physician does not always take enough time to answer questions.	3.3 (2.2 to 5.2)‖	3.2 (1.9 to 5.1)‖	2.2 (1.3 to 3.7)‖
Physician does not always ask about how the family or living situation affects health.	1.3 (0.7 to 2.3)	1.0 (0.6 to 1.9)	0.8 (0.4 to 1.6)
Patient does not always get as much medical information as he/she wants.	4.0 (2.4 to 6.6)‖	2.8 (1.6 to 4.9)‖	2.4 (1.3 to 4.4)‖
Patient is not always involved in decisions as much as he/she wants.	1.4 (0.9 to 2.2)	0.9 (0.6 to 1.5)	1.0 (0.6 to 1.7)
Problem experiences related to disagreements about care			
Patient was not provided tests, procedures, or referrals that he/she thought were needed.	4.4 (2.9 to 6.6)‖	2.0 (1.2 to 3.3)‖	2.0 (1.2 to 3.2)‖
Trust			
Trust scale (range 1 to 5)		0.1 (0.07 to 0.2)‖	0.2 (0.1 to 0.3)‖
Overall ratings			
Ratings of physician (range 1 to 5)			0.3 (0.2 to 0.4)‖

** Using logistic regression, also controlling for patient characteristics (age, gender, race, education, income, health status, choice of physicians, number of visits in past year, number of years seeing current doctor, choice of health plans and type of insurance), physician characteristics (specialty, type of practice, foreign medical graduate status, board certification status, and gender) and plan site.* N *= 1,922 for all models due to missing data.*

† *C-statistic = 0.90.*

‡ *C-statistic = 0.93.*

§ *C-statistic = 0.95.*

‖ $P < .05$.

OR, odds ratio; CI, confidence interval.

health insurer. Although our sample included fee-for-service and managed care enrollees in 3 geographically diverse markets, the generalizability of our results to other settings and groups of patients, including non-insured patients, requires further study. Second, we do not know whether care experiences of respondents differed from those of nonrespondents, although even if we made the extreme assumption that all nonrespondents had no problem experiences, the prevalence of having at least 1 problem experience would still be nearly 50%. Third, some patients had not seen their primary care provider in the previous year. However, the number of problem experiences patients reported did not vary by the number of primary care visits (data not shown), and our results were similar when we restricted the analyses to those with 1 or more visit in the previous year. Fourth, our study is a cross-sectional analysis, and therefore we cannot confirm causal relationships, only associations. For example, some of the causal pathways specified in Figure 1 might operate in the opposite direction. Fifth, we did not ask patients about interactions with their physicians in nonoffice settings, such as telephone calls. Finally, our results may be sensitive to our method of coding problem experiences; however, the results of our sensitivity analysis were consistent with our main analyses.

Although most patients' experiences with their physicians are good, those that are not may have important consequences, including lower trust, lower ratings of physicians, and greater likelihood of changing physicians. More physician training in communication skills, particularly focused on answering questions in ways that patients can understand, taking enough time to answer questions, providing adequate amounts of information, and discussing differences in opinion about whether tests, procedures, or referrals are needed, may strengthen patient-physician relationships. This type of training is effective[4,6,40] and should be a priority of residency training programs, medical schools, medical groups, and health care organizations.

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APPENDIX A

*Trust Scale**

How much do you trust your physician('s):

1. Judgment about your medical care?
2. To put your health and well being above keeping down the health plan's costs?
3. To refer you to a specialist when needed?
4. To make appropriate medical decisions regardless of health plan rules and guidelines?
5. To perform necessary medical tests and procedures regardless of cost?
6. To admit you to the hospital when needed?
7. To perform only medically necessary tests and procedures?
8. To offer you high-quality medical care?
9. To keep personally sensitive medical information private?
10. To provide you with information on all potential medical options and not just options covered by the health plan?

** Response options were completely, mostly, somewhat, a little, and not at all.*

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